Crime Mapping News



A Quarterly Newsletter for GIS, Crime Mapping, and Policing

The theme of this issue of *Crime Mapping News* is regional (cross-jurisdictional) data sharing and crime mapping. Law enforcement practitioners and researchers have long been aware of the fact that crime patterns and criminal activity are not limited by city, county, or even state boundaries. Therefore, the development of partnerships to enhance information sharing across jurisdictional boundaries is essential to effective crime analysis and crime mapping efforts. The articles in this issue cover topics including 1) a statewide crime analysis and mapping project among police agencies in Massachusetts that use NIBRS reporting guidelines, 2) a data exchange and regional crime mapping initiative in Sussex, UK, and 3) an example of a proposal for a multi-jurisdictional crime mapping initiative sponsored by police departments and other government agencies in the metropolitan Kansas City area.

Statewide Crime Analysis and Mapping: An On-Going Project

by Dan Bibel, Program Manager Crime Reporting Unit, Massachusetts State Police

Over the past several decades, sophisticated crime analysis and crime mapping units have been implemented within local police agencies as tools designed to understand and fight crime at the local level. Traditionally, crime and crime fighting have been seen as indigenous issues requiring a local solution. The development of community oriented policing, for example, has focused attention on small-scale problems and problem solving. As computer hardware has become cheaper and software more powerful, many larger police agencies, and some smaller ones, have developed the skills and techniques needed to do excellent crime analysis, within the borders of their community.

By focusing on the local situation, however, police have ignored an important reality: crime is not solely a local problem. Although police powers end at the borders of the jurisdiction, criminals are able to quickly and easily cross the borders to escape apprehension. In addition, many crimes are serial – that is, individual incidents can be part of an on-going series of offenses. These related incidents will occur over space and/or time. The only way to understand and fight such serial crimes is by understanding the regional pattern and nature of criminal activity. Although police understand the power of a regional information sharing system, there are some significant political and technical hurdles that need to be addressed.

The Massachusetts State Police is currently developing a system that will allow local police agencies throughout Massachusetts to do just that: examine and study crime within their jurisdictions, and at the same time look for patterns of crime in the surrounding areas. This regional crime fighting system is called SCAMP: Statewide

Note from the Editors: The opinions expressed in the articles of this newsletter are those of the authors and do not necessarily reflect the views of the Police Foundation or the COPS Office. In addition, only light editing has been done to the articles in order to keep each author's voice and tone.

Volume 2 Issue 3 Summer 2000

Inside this Issue

Statewide Crime Analysis
and Mapping:
An On-Going Project1
~ · · · · · · · · · · · · · · · · · · ·
Contacting the Crime
Mapping Laboratory2
Next Issue4
Crime Mapping
Data Partnerships:
The Sussex (UK)
Perspective5
rerspective
Mapping In Action:
Kansas City Community
Crime Mapping Initiative 7
Office of Community
Oriented Policing
Services (COPS)
on the Web9
Upcoming Conferences
and Training 10
Web Site Reviews11
About the Police
Foundation

Crime Analysis and Mapping Program. SCAMP will work by taking local data submitted to the State Police, adding some value to it, and making it available back to the user in an easily accessible format. SCAMP has been developed in a way that will overcome some of these technical and political impediments.

SCAMP is designed in part to respond to the results of a technology survey conducted by the Statistical Analysis Center of the Massachusetts Executive Office of Public Safety. In that survey, police executives were asked whether the agency had any officers who were trained in crime analysis and whether the department had a geographic information system. The results mirrored to some extent a similar survey conducted by the Crime

Mapping Research Center: a majority of agencies serving populations greater than 50,000 had crime analysis or GIS capabilities,

Massachusetts Police Departments with GIS			
or Crime Analysis Capabilities (1998)			
Size of Police Jurisdiction	Under 50,000	Over 50,000	
GIS	45/300 (15.0%)	11/19 (57.9%)	
Crime Analysis	25/152 (16.4%)	12/17 (70.6%)	

while fewer than 20% of agencies serving populations less than 50,000 had either capability (see preceding table). We believe that most police officials want both crime fighting tools, but the reality uncovered by the survey is that the majority of police departments have neither the training nor the software to do either.

Part of the problem facing any potential regional system is technical: different agencies use different police record management software that code data in different

Contacting the Police Foundation Crime Mapping Laboratory:

By Phone: (202) 833-1460 By Fax: (202) 659-9149

By E-mail: pfmaplab@policefoundation.org By Mail: 1201 Connecticut Avenue, NW

Suite 200

Washington, DC 20036

Also feel free to contact individual Crime Mapping Laboratory staff with questions or comments:

Rachel Boba, PhD, Director rboba@policefoundation.org

Mary Velasco, Research Associate mvelasco@policefoundation.org

Jim Griffin, Graduate Research Intern jgriffin@policefoundation.org ways and run on different operating systems. Department A codes offenses using the state's criminal chapter and sections, while Department B uses NCIC codes, and Department C uses the codes that the local court requires. One software implementation runs on a Unix OS, another on a Netware system, and the third on a VAX Alpha. In Massachusetts, for example, there are numerous systems in place from four major police software vendors and no easy way for data in any one system to be transferred to another.

SCAMP has overcome the potential difficulty of data sharing by using a standard data transport mechanism: the FBI's National Incident Based Reporting System (NIBRS). The NIBRS data set contains detailed incident-level data on a wide variety of offense categories, with data on victims,

> offenders, arrestees, as well as property and drug data. The standard information collected in this replacement for the current Uniform Crime Report data does

have variables for the date and time of the incident, as well as a field with information on the type of location of the incident (residence, bank, park, etc.). What NIBRS lacks, however, is the street address of the crime - a critical missing link in turning a statistical data collection system into an operational policing tool.

The Massachusetts Crime Reporting Unit realized several years ago that NIBRS had the potential to be the basis of a wide-area crime analysis system, but only if address data could be added to the standard data set¹. Crime location could be easily added to the NIBRS set, since the vast majority of crimes have a specific location. We proceeded along two parallel paths to modify the NIBRS system. First, we needed to develop a comprehensive set of data elements used to capture address information. While that effort was underway, we needed to gain the approval of the chiefs of police whose data we were requesting and the cooperation of the vendors whose software would capture and supply it.

Our modifications to NIBRS include separate fields for street number, street name, additional address information (e.g. apartment number, floor number, lot or building number, etc.), town name (used primarily for multi-jurisdictional agencies), and latitude and longitude. We decided not to ask for zip code, since we felt that this information would be very difficult to obtain.

These data elements were presented to the vendors who had systems in Massachusetts to determine if there might be unforeseen problems with their collection or transmittal to the state. Communications and meetings were held with police officers from the agencies currently reporting NIBRS

¹ The standard NIBRS data can be disaggregated in ways that summary UCR data cannot, which leads to a number of interesting analyses: temporally (since incident time is known) and demographically (since the age, race, and sex of victims is collected). In the UCR data, only homicides can be disaggregated in this way.

data and with the Executive Board of the Massachusetts Chiefs of Police Association to gain their approval for this significant modification to the existing system. There were only a few minor comments and suggestions from the vendor community. The police officials we met with were uniformly enthusiastic about the potential for regional information sharing and analysis. In March 1999 we instituted the new data collection system and began receiving our first incidents with addresses.

There are political issues concerning the development of a regional information system. Regional crime analysis is similar in many ways to more geographically (and jurisdictionally) focused work. There is a need for comprehensive data collection, analysis, and

interpretation, well as cooperation among a number of different players within the agency or agencies involved2. When crime problems cross jurisdictional boundaries, however, crime analysis becomes increasingly Eggar difficult. (1984) coined the expression "linkage blindness" describe t h e organizational problems that inhibit the sharing

Massachusetts NIBRS agencies are shaded

of criminal intelligence data and therefore impede crime fighting. It should be noted that most of the published work on regional patterns of crime and crime analysis have focused on serial homicides. However, many of the difficulties involved in the analysis of these crimes are applicable to other series of patterned offenses.

Thibault (1985, p. 319) noted three factors that create problems in regional crime fighting:

- 1. Active competition between police organizations for calls, resources, and at times, personnel.
- 2. De facto spheres of influence arranged by formal and informal agreements between agencies.
- 3. Informal relationships, usually based upon how well certain officers or agency heads get along, determine the distribution of intelligence

information, assistance to other departments during emergencies, and the success or failure of interagency projects.

We can assume that some or all of these factors will be found as the project is rolled out. SCAMP cannot break down all barriers to information sharing between agencies, especially those due to personality conflicts. By creating a regional database and by demonstrating the utility of such a system, we believe that many of the political impediments to information sharing may be eliminated.

Our project, which is in an early stage of development, calls for an Internet application built with tight security and accessible only to police agencies. It will be

built using ESRI

components such as Map Objects and Internet Map Server and hosted and administered by the State Police. The local user will need nothing more than a standard Web browser to access the system and will be presented with a menu front end that will allow for a point and click type of interface—much less daunting for the novice map maker. Since many users will be connecting

to the system through slow-speed dial-up lines, we will make efforts to optimize the application for the most prevalent connect speed.

Applied Geographic, Inc. of Boston will develop the initial work product. The work will have the following functionalities built in (this is a preliminary list, subject to change):

- To categorize with differential symbolization property crimes by: robbery, burglary, larceny, and motor vehicle theft
- Provide tools for "rolling up" incident data into summary statistics by geographical area (e.g. burglaries by census tract)
- To facilitate mapping/reporting by querying:
 - Date/date range
 - Time/time range
 - Location
 - Property type stolen
 - Total value of stolen property
- To create maps based on:
 - User defined buffer around an address

² Gottlieb et al. (1994) indicates that the crime analysis process is composed of data collection, collation, analysis, dissemination, and feedback/evaluation.

- Neighborhood, patrol sector, census block/ block group/tract of interest
- Entire city or town
- Region or group of contiguous towns
- User defined box
- Products for internal police department use (intradepartmental use)
- Products for external use (policy makers, media, and general public)
- An intuitive, easily navigable Web site
- Color maps directly printable from Web browser
- Statistical summaries directly printable from Web browser

As we have a very limited amount of money for this phase of the project development, the software is being developed more as a "proof of concept" than as a fully featured and statewide application. In this beta version, we will focus on three continuous communities and property crimes within them—perhaps less newsworthy than high profile serial homicides, but we think we will have a greater impact with these sorts of crimes. There are many burglaries, larcenies, and motor vehicle thefts; they impact a large number of victims; they cost society large amounts of money; and many of these crimes are committed by repeat offenders in series or patterns.

The crime reporting units in both Connecticut and New Hampshire have expressed interest in the Massachusetts project. Both agencies use the same software for managing NIBRS at the state level, so it is feasible to think that an interstate data sharing and mapping program could be developed.

Currently, we are receiving addressable NIBRS data from 160 cities, towns, and campus police agencies throughout Massachusetts (see preceding map). These agencies cover a residential population of over 2.3 million. They represent about 55% of all full-time police agencies and approximately 40% of the state's population. Although NIBRS implementation is moving more slowly than we might hope, two cities with populations of over 150,000 do report NIBRS data, and we anticipate having

NEXT ISSUE

The theme of the next issue will be mapping traditional law enforcement data such as crime and calls for service with other non-policing data sources such as probation or school incident data.

If you are interested in contributing to the next issue or any future issue, please contact the Crime Mapping Laboratory at:

> pfmaplab@policefoundation.org or (202) 833-1460

over 200 departments reporting by the end of 2000, covering a population of over 3 million. As we move to develop and implement SCAMP, more departments will see that participating in NIBRS will give them advantages that no other system can.

References

Egger, Steven A. "A Working Definition of Serial Murder and the Reduction of Linkage Blindness." *Journal of Police Science and Administration*. 12: 3, pp 348-357.

Gottlieb, S., S. Arenberg, and R. Singh. *Crime Analysis*. Alpha Publishing, Montclair, CA. 1994.

Thibault, Edward A., Lynch, Lawrence M., and McBride, R. Bruce. *Proactive Police Management*. Prentice-Hall, Inc., Englewood Cliffs, NJ. 1985.

Dan Bibel is the Program Manager for the Crime Reporting Unit of the Massachusetts State Police. He can be contacted via e-mail at daniel.bibel@pol.state.ma.us.

IACA Training 2000: Dedication to Analysis Solicitation for Crime Analysis Success Stories

In conjunction with the International Association of Crime Analysts (IACA) Training 2000: Dedication to Analysis, November 1-4, 2000, one session during the training will feature "Crime Analysis Success Stories." Three entrants will be selected to present their "success story" during this $1 \frac{1}{2}$ hour session.

Individual presentations should not exceed 20 minutes. Maps, charts, and other visual aids are mandatory, and copies of each success story will be distributed to the attendees at the session. Papers submitted through the mail must be typewritten and double-spaced on 8.5 by 11-inch paper using 1-inch margins. Maps, charts, and other images should be included with the copy. If submitting through e-mail, submit your entry using MS Word following the same guidelines, attaching images as a .jpg, .bmp, .gif, or other similar file type. Author's name, agency association, and contact information should be included on the title page only, as submission will be evaluated anonymously. (The chosen entrants will have their \$275 conference fee waived.)

All success stories should be sent via e-mail to scwernic@opkansas.org or mail to Susan Wernicke, Overland Park Police Department, 12400 Foster, Overland Park, KS 66213.

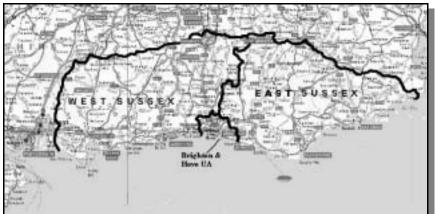
Submissions are due by September 1, 2000.

Crime Mapping Data Partnerships: The Sussex (UK) Perspective

by Phil Spivey, Data Exchange & Audit Analyst, Sussex Police Sue Harley, Data Exchange & Audit Analyst, West Sussex County Council Tom Tyler, Information Analyst, East Sussex County Council

The Sussex police force is responsible for maintaining law and order across two county councils (East and West Sussex) and one unitary authority (Brighton & Hove). This area is located along the south coast of England, covering an area of 1467 square miles, with a residential population of just under 1.5 million. There is an element of seasonal population variation due to the south coast being a popular holiday/recreational destination. The three county/ unitary council areas (C/UC) encompass a combination of coastal, rural, city, and urban locations. They are proximate to London, 25 miles to the north, and within about 40 miles from the French coast across the English Channel (see location map).

In 1998, the Crime & Disorder Act (1998 C & D Act) was introduced, which meant that all police forces and local authorities in England, Scotland, Wales and were statutorily compelled to work in partnership to create a crime audit and crime reduction strategy for each district/borough government



area (referred to as local government area or LGA). In accordance with the 1998 C & D Act requirements, crime audits were undertaken during a 3-month period starting in September 1998. Police crime and incident data (1996-1998) were primarily used, mainly due to ease of access and relevance of the content. However, data from other agencies were also used, when available. Following the crime audits was a period of public consultation, focusing on the issues identified by the crime audit analysis. A three-year, multiagency crime reduction strategy was then developed and published on 1st April 1999. Each agency had a responsibility to support the strategies and enable the action plans to be executed.

During the ensuing period, other UK and European acts of parliament (the 1998 Data Protection Act, the 1998 Human Rights Act (ECHR), and the 2000 Freedom of Information Bill) also had an impact on how the data could be held and shared between agencies. Some of the acts "cut across" each other with reference to data handling and sharing, and it seems to have caused an element of confusion by the inherent creation of more "red tape." Of course, we

agree that the rights of the individual have to be protected and maintained, but when you have to work with personal data on a daily basis, the "red tape" can become very frustrating, indeed.

To ensure that we conform to the guidelines set down by the various acts, an Information Exchange Protocol was established. Section 115 of the 1998 C & D Act did, in a small way, create a mechanism to exchange data between the recognized stakeholders. However, it only imposes a "power" to disclose information where it did not already exist, rather than a "duty" or compulsion. The 1998 C & D Act also lacked any practical guidance on how to actually exchange data. Some "loose" guidance was delivered via the Home Office

Web site and a number of Sussex based multiagency seminars, but in reality, the central government had placed the onus on the partnerships to develop their own data exchange process (see www.homeoffice.gov.uk/cdact/index.htm).

A small multiagency working group based in West Sussex developed the Sussex "Information Exchange

Protocol" for the 1998 C & D Act. It focused on the exchange of data at an LGA level, thus instilling elements of ownership and responsibility to the partnership members. The protocol was eventually adopted by most agencies across the Sussex policing area after extensive discussions, negotiations, and amendments. Nevertheless, there has been a degree of reluctance to sign up to the protocol from some quarters. Issues around the confidentiality of personal data were of particular concern to a number of agencies. Naturally, these are important issues, in light of the UK and European Acts of parliament, and they required to be addressed appropriately.

After the 1998 crime audit process review was completed, a number of key areas were highlighted for special attention. As mentioned previously, data quality and accessibility were of primary importance. Throughout the audit, a large number of information sources within the partnerships were identified, and this led us to discuss the possibility of conducting local data inventories. Although the idea in principle is sound, the cost and time it would take to conduct a formal data inventory was prohibitive. All in all, this gave rise to more questions regarding data compatibility

"Taking into account that there is an

emphasis on geographical policing and

that most information held by the

partnership members had a geographical

identifier of some description, it was

obvious that GIS would be the best option

for data integration and analysis."

and accessibility. It is quite a complex issue, and one that we will briefly expand on in this short paper.

Data have traditionally been collected by the various authorities for a number of purposes, but they have not always been collected with a crime audit in mind. Therefore, some data supplied by the partnership members were not necessarily fit for the purpose for which they were required. During the crime audit, an LGA data depository was established and this allowed the "audit team" from the particular LGA to access the data when required. However, inconsistent formats, the lack of geocoded data, problems with administrative boundary co-terminosity, incompatible geographic areas, and the fact that much of the data supplied was paper-based made its assimilation and analysis difficult. Data quality, or rather the lack of it, restricted us from taking advantage of the GIS technology available. With limited guidance on data quality and compatibility being offered by the central government, it was once again up to each of the LGAs to formulate their own agreed data standards. Appreciation of the data requirements varied

between the agencies, and this was reflected in some of the data quality issues raised in the 1998 crime audit process review.

Taking into account that there is an emphasis on geographical policing and that most information held by the partnership members had a geographical identifier of some description, it was obvious that GIS would be the best option for data integration and analysis. Within the text of

many government publications, the Home Office and the Audit Commission strongly recommend that GIS be introduced as a means of analyzing levels of crime and disorder. Therefore, strategic plans are being formulated across the Sussex area to include GIS as a prerequisite for C & D analysis. This is not only because of GIS analytical capabilities, but also because it enables collective mapping of the Sussex area. This will enable Sussex Police, as the authority "straddling" the three C/UCs, to visualize to what extent levels and themes of crime and disorder prevail across its policing area.

With all this in mind, data co-ordination groups (DCG) in West Sussex and East Sussex were established in August 1999 in an attempt to remedy the problems. These groups, in effect, endeavor to establish a common data model and share best practice with respect to crime and disorder analysis and GIS mapping across the C/UC areas. With the assistance of the established DCG members, Brighton & Hove LGA is currently in the process of creating its own DCG. A proposed strategic vision is to establish a pan-Sussex DCG in the next 12 to 18 months. In the current political climate, it seems that the central

government is pushing towards a regionalized local government, and a pan-Sussex DCG is a natural, if not a necessary, progression.

The progress so far has been encouraging, if not somewhat restricted. Although the DCGs have attempted to address the data quality issue, with particular reference to BS 7666 (the British standard for street address format), the actual integration of the data into a "live" GIS has been limited. The prime concern for us in the DCG is the issue of data quality; without it, we cannot reliably begin to map crime and disorder. We all appreciate that data integrity is of paramount importance, and we have striven to ensure a level of confidence that is acceptable to all concerned. It has, however, been very frustrating due to the various data processing systems adopted by the partnership members, their varying degree of knowledge of GIS requirements, and above all, the different levels of resources-financial, personnel, and technological. Not only are we concerned with the raw data, the data analysis, and its spatial/cartographic visualization, but we also try to encourage the adoption of a co-ordinated approach to the various IT and

information strategies.

The DCG's aim is also to promote a "joined-up thinking" approach to GIS integration. Research by our members has taken us towards outside agencies and institutions for additional guidance. We have tried to link to as many sources as possible, both in the UK and internationally, to increase our knowledge and appreciation of the current and potential crime mapping application developments. We believe that this is a sound

believe that this is a sound approach. Many groups and individuals are willing to share their "interpretation" of how to best resolve the problems of data sharing and crime mapping, and this article may well be considered one of them. Developing ones strategies in isolation can be dangerous.

Membership in organizations such as the Association of Geographic Information (AGI) and in particular, the AGI's Crime & Disorder Special Interest Group, has assisted us in formulating our strategies. Our long-term strategic vision will enable us to encompass the latest technology for the production and presentation of the crime maps. Police and Fire emergency services in Sussex are already at the forefront of mobile data terminal technology. On the strength of this, it is envisaged that in the near future, the same technology will be used to accurately geocode crime/incident locations, especially in rural areas; but why stop there? The rapid developments in mobile Internet technology, for instance, are paving the way for us to accurately locate crime/incident locations and to produce timely incident reports. We are looking to exploit the emerging technologies to enable us to provide a better quality of service to the community.

Even though this article has placed most of its

attention on data exchange through partnerships, we have not lost sight of the real consumers—the public. The DCGs are also investigating ways in which we can disseminate the information back into the public domain. Data assimilation without dissemination is a futile exercise. However, the complexity of the Acts previously mentioned create a number of privacy issues that will have to be resolved before we can deliver the information to the public, who in almost every case, are the subjects of the raw data.

A majority of group members are analysts of one description or another and are all conversant with the various analytical product requirements. Crime mapping is of particular special interest to us, but we are restricted by the analytical capabilities of the GIS software to which we have access at the present time. (Although analytical applications development is imminent.) Therefore, we decided that the data quality and migration issues should be addressed first in the belief that data is the foundation on which to conduct the analysis. We have examined ways of data cleaning, various levels of raw data geocoding, secure networks, encryption, etc., so that we can formulate a data model that is acceptable to all DCG members. Data with quality and integrity assurance allow us to perform analyses with confidence. It also ensures that data are compatible with most IT and GI systems and so the issue of data migration between administrative authorities is markedly diminished. We are not in the business of putting the cart before the horse.

In conclusion, although the DCG partnerships have been in place for nine months, there is still quite a deal of improvement needed to achieve the goals set out in the early stages. The 1998 C & D Act set the standard to which we have to work, and the DCGs are striving to improve on that mark. The aforementioned Acts are complex and demanding pieces of legislation. The DCGs require not only members with vision and foresight to assess future needs and requirements, but also those who are enthusiastic and committed "champions." Diplomatic, negotiation, educational skills are also required in order to receive continued support from senior management. Crime mapping utilizing GIS is a relatively new technology, especially within a multi-agency environment. One must curb the impulse for the "quick win" solution. A long-term commitment to the principles of data exchange and crime mapping is required to enable the achievement of our goals.

Agency Web Sites:

East Sussex County Council (www.eastsussexcc.gov.uk)
West Sussex County Council (www.westsussex.gov.uk)
Brighton & Hove Borough Council (www.brighton-hove.gov.uk)

Sussex Police (www.sussex.police.uk) National Criminal Intelligence Service (www.ncis.co.uk) Association of Geographic Information (www.agi.org.uk)

Phil Spivey can be e-mailed at phillip.spivey@sussex.police. uk; Sue Harley can be e-mailed at sue_harley@surreycc. gov.uk; and Tom Tyler can be e-mailed at tom. tyler@eastsussexcc.gov.uk.

Mapping in Action:

Kansas City Community Crime Mapping Initiative Submitted by Carol McCoy Lenexa, Kansas Police Department

The following is a proposal for a multi-jurisdictional crime mapping program developed by the Kansas City Regional Crime Mapping Policy Sub-Committee in June 2000. This article has been submitted by Carol McCoy, a Crime Analyst for the Lenexa, Kansas Police Department, as an example of regional crime mapping and data sharing. A list of the participating agencies is provided at the end of this article.

Police agencies throughout the (bi-state) metropolitan Kansas City region, and nationwide, have historically restricted crime analysis to their own jurisdictions. The state line between Kansas and Missouri has been one of many barriers to the free flow of information sharing that is vital to the success of crime prevention and criminal investigations for agencies on both sides of the line. Police agencies understand that crime suspects know no boundaries and that criminals will commit crimes regardless of city or state lines. It is imperative that cooperation occurs among agencies in order to routinely exchange and analyze crime data for the development of patterns that frequently extend beyond jurisdictional boundaries.

The *verbal* exchange of crime data between agencies has occurred for years in the Kansas City community. Several meetings between area police agencies regularly take place throughout the region. Crime mapping data have been shared only rarely, depending on the technical sophistication and initiative of participating agencies. Several agencies have already successfully used mapping technology in various investigations and many more would like to use crime mapping to further their community policing efforts and assist in department-wide decision-making processes. But something has always been missing. While many agencies can provide crime mapping data for their jurisdictions, regional crime mapping on a *multi-jurisdictional* scale has been only a dream.

Technical barriers to regional crime mapping have been abundant until the past few years. But even with geographic information systems flourishing, many agencies still feel the cost to participating in regional crime mapping prohibitive. The human resources and equipment to implement such an initiative are scarce for many agencies.

Our goal is to make regional crime mapping through data exchange a reality for all regional agencies, regardless of their size or current technological ability. We foresee this reality through the creation of a secure Internet-based, GIS-driven, crime mapping and crime analysis system within the bi-state Kansas City metropolitan region. To ensure the success of this effort, continued cooperation—a trademark in our region—is vital.

The potential benefits and rewards of this initiative are numerous. Here are a few:

- Regional crime mapping will offer all agencies the opportunity to see the big picture as it relates to crime in the metropolitan area.
- Investigations will be enhanced because more data will be readily available to examine, resulting in the identification and arrest of more suspects.
- Crime analysis will be enhanced as a result of exchanging timely and complete offense data. This will allow for the identification of community-wide patterns and series that will, in turn, enable working analysts to (reasonably) predict future offenses.
- The sharing of resources will allow all agencies access to valuable crime data while reducing overall costs for each agency.
- This initiative will further complement interagency cooperation and collaboration.
- Smaller agencies with limited resources will be provided access to the same data as larger agencies.
- This initiative will eventually be able to provide many additional layers of valuable information that will help our regional community identify problems, causes, and possible solutions.
- This initiative will provide for timely and more complete crime data to facilitate community policing services, crime prevention, and the deployment of patrol resources.
- This plan calls for the use of an Internet capable personal computer and browser rather than large mainframe computers.

We also know there will be challenges to overcome in our initiative including, but certainly not limited to, the following:

- Cost considerations. There will likely be some costs for participating agencies in order to maintain the initiative on an annual basis. The cost will vary depending on the number of members who join the initiative; approximately thirty members are expected to join at the onset. As an example, the seventeen members of the Baltimore/Washington initiative pay less than \$100.00 per month. Some accommodations may need to be considered for our regional agencies that may not be able to afford this amount. This issue can be worked out. The importance lies in the willingness of each agency to make their data available to the region.
- Numerous technical issues will require close scrutiny.
 Data sharing formats will need to be identified and standardized. Hardware and software availability and usage varies from agency to agency.
- Technical expertise varies by agency. Training will be necessary to ensure standardization of data entry and retrieval.
- Establishing the administrative architecture for the

initiative. This will likely require the oversight of a bi-state, multi-jurisdictional executive committee with the support of sub-committees consisting of users and technology representatives.

Funding for the planning and implementation of this initiative will be sought through grants. Phase One of the process will consist of applying for a grant in the amount of \$100,000. The grant will pay for a consultant to assist in the complex planning and assessment that will be required. The consultant chosen for Phase One will be ineligible to participate in Phase Two. Phase Two of the process will consist of the implementation of the initiative, based on the recommendations of the consultant. This phase will include hardware acquisition, software programming, application deployment, and user training. This phase may require an additional grant application.

The success of our project will depend on the participation of *all* agencies to provide selected crime data in a timely fashion. It is understood that some agencies may not be able to input their own data because of a lack of resources. In these instances, other agencies, in the spirit of community building, have already agreed to lend assistance as necessary. The region will initially consist of agencies within Douglas, Johnson, Leavenworth, and Wyandotte counties in Kansas, and Cass, Clay, Jackson, Lafayette, Platte, and Ray counties in Missouri.

Participating Members:

Missouri:

City of Kansas City Clay County Sheriff's Office Gladstone Dept. of Public Safety Grain Valley Police Department Grandview Police Department Greenwood Police Department Independence Police Department Kansas City Police Department Lake Lotawana Police Department Lee's Summit Police Department Liberty Police Department Lone Jack Police Department North Kansas City Police Department Oak Grove Police Department Pleasant Hill Police Department Raytown Police Department

Kansas:
City of Lenexa
City of Olathe
City of Overland Park
Gardner Department of Public Safety
Johnson County Sheriff's Department
Kansas City Police Department
Kansas Highway Patrol
Lawrence Police Department
Leawood Police Department
Lenexa Police Department
Olathe Police Department
Overland Park Police Department
Prairie Village Police Department

Kansas City Regional Crime Mapping Initiative Policy Sub-Committee Representatives:

Capt. David Burger: Lenexa, KS P.D.
Capt. Doug Weishar: Kansas City, MO P.D.
Major Walter Way: Johnson County, KS Sheriff
Lt. Gordon Brown: Independence, MO P.D.
Mr. Gerry Tallman: Overland Park, KS P.D.
Capt. Tom McGillin: Olathe, KS P.D.
Lt. Mark Balzer: Liberty, MO P.D.

Carol McCoy is a Crime Analyst for the Lenexa, KS Police Department. She can be reached at cmccoy@lenexakansas.org.

The COPS Internet — Information on COPS and Community Policing is just a CLICK away

Visit the redesigned and easier to use COPS web site at www.usdoj.gov/cops.

Five key channels provide up to date information on COPS and its programs:

News & Information: For the latest grant announcements, press releases, and upcoming events

Grants, Programs, & Activities: For a list of current funding apportunities complete with application kits and comprehensive descriptions on all our grant programs and more, including training and technical assistance, compliance and monitoring, and program assessment and policy support

Grantee Toolbox: Resources for our grantees including contact information, tips, grant owner's manuals, and progress report forms

Community Policing Resources: A respository of excellent community policing resources including COPS funded studies, reports, curriculums, tools, and tips, conference capsules, ongoing assessments, and promising practices from the field

Freedom of Information Act (FOIA): For FOIA contact information and an electronic reading room, including state listings of all COPS grantees



Visit the COPS Site today!

New material is posted to the site daily. Check it often for the latest news on the COPS program.

Upcoming Conferences and Training

August

Urban and Regional Information Systems Association (URISA) 2000 Annual Conference and Exposition

> August 19-23, 2000 Omni Rosen Hotel Orlando, FL http://www.urisa.org/2000conference/ prelim/cover.htm

International Association of Chiefs of Police: Advanced Crime Analysis

> August 21-23, 2000 Toledo, OH

Contact: Tresonya Ball, ball@theiacp.org

September

California University of Pennsylvania GIS Conference 2000

September 8, 2000 Cal U. Southpointe Campus, PA Contact: Tom Mueller, mueller@cup.edu or (724) 938-4255

October

The National Law Enforcement and Corrections
Technology Center (NLECTC)
Crime Manning and Analysis Program (CMAP)

Crime Mapping and Analysis Program (CMAP) MapInfo Class

October 9-14, 2000 Denver, CO Contact: Alisa Anthony, aanthony@du.edu or (800) 416-8086

General Web Resources for Training Seminars and Conferences

http://www.urisa.org/meetings.htm

http://www.ifp.uni-stuttgart.de/ifp/gis/

conferences.html

http://www.geoinfosystems.com/calendar.htm

http://msdis.missouri.edu/

http://magicweb.kgs.ukans.edu/magic/

magic_net.html

http://www.nsgic.org/

http://www.mapinfo.com/events

http://www.esri.com/events

http://www.ojp.usdoj.gov/cmrc/training/

welcome.html

http://www.nlectc.org/nlectcrm/cmaptrain.html

http://www.nijpcs.org/upcoming.htm

http://www.usdoj.gov/cops/gpa/tta/default.htm

http://giscenter.isu.edu/training/training.htm

http://www.alphagroupcenter.com/index2.htm

Early Reminders!

International Association of Crime Analysts
Training 2000
November 1-4, 2000, Denver, CO

Registration information at www.iaca.net/Conferences/2000/ 2KConference.htm

First Annual Birmingham GIS Conference November 27-29, 2000, Birmingham, AL For information, contact Brian Boyle (800) 414-9408

Fourth Annual International Crime Mapping Research Conference December 9-12, 2000, San Diego, CA Registration available at www.nijpcs.org/upcoming.htm

Web Site Reviews



Evansville, Indiana Police Department Web Page http://www.evansvillepolice.com

The Evansville Police Department's Crime Analysis Unit can be accessed through the *Information* section in the Web site's main Table of Contents. This site features *Sector and Beat Maps*, *Crime Graphs and Charts*, and *Crime Maps*. The *Sector and Beat Maps* section illustrates the boundaries for the city's three sectors. Visitors to this site can click on one of the three sectors to access a beat map. The section *Crime Graphs and Charts* depicts the frequency of selected crimes, complaints, and arrests in the city and for each sector for the two most recent months. These data can be displayed as a bar graph or in table format. Lastly, the *Crime Maps* section includes updated weekly maps that depict the location and frequency of selected crimes. Also included in this section are monthly maps depicting calls for service and crime thematically shaded by beat.



Pierce County, Washington Sheriff's Department Web Page http://www.co.pierce.wa.us/abtus/ourorg/sheriff/default.htm

The Pierce County Sheriff's Department maintains a database of all registered sex/kidnapping offenders residing within its jurisdiction. Through the *Registered Sex Offenders* page, visitors to the department's Web site can obtain general information about the different sex offender classifications and state laws concerning registered sex offenders. The Web site also includes an interactive mapping application that takes users through a three-step process, allowing them to determine if any registered sex offenders reside within a 0.5 mile radius of an address. The resulting query displays a map with a circle representing the 0.5 mile radius. If one or more sex offenders reside within the area, users can review the offenders' names and offense information.



Carolinas Institute for Community Policing Web Page http://www.cicp.org

GIS is a main focus of the Carolinas Institute for Community Policing (CICP) Web site. The site provides a brief explanatory overview of the uses of GIS and also provides examples of how the CICP has used GIS for crime analysis and problem solving. One of these examples is an illustration of the four stages of the SARA process (Scanning, Analysis, Response, Assessment) as they relate to crime mapping. Another section of the Web site is entitled *One Offender's Legacy*. This section includes several maps that plot one offender's arrests, broken down by type of crime, for the time period of 1978 through 1999.

We are interested in highlighting your Web site!

If your department or organization posts maps or has interactive maps on the Web, please let us know.

We will highlight your page in a future issue!

For contact information, see page 2.

ABOUT THE POLICE FOUNDATION

The Police Foundation is a private, independent, not-for-profit organization dedicated to supporting innovation and improvement in policing through its research, technical assistance, and communications programs. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to transfer to local agencies the best new information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating all of the foundation's efforts is the goal of efficient, humane policing that operates within the framework of democratic principles and the highest ideals of the nation.

OFFICE OF RESEARCH

David Weisburd, PhD Senior Research Scientist

Rosann Greenspan, PhD Research Director

Graham Farrell, PhD Deputy Research Director

Rachel Boba, PhD
Director, Crime Mapping Laboratory

Justin Ready, MA Senior Research Associate

Edwin E. Hamilton, MA Senior Research Analyst

Research Associates

Erin A. Lane, MPM

Joan Lucera, BS

Ann Marie McNally, MA

Mary Velasco, BS

Research Assistants

Perri Gottlieb, BA

Tamara Sorensen, BA

Kelli Edwards, BA Senior Administrative Assistant

Graduate Research Interns

Jim Griffin, BA
Jeannette Pugh, BA
Laura Wyckoff, BA

Rochelle Fleischman Research Intern

BOARD OF DIRECTORS

Chairman William G. Milliken

President
Hubert Williams

Freda Adler

Lee P. Brown

David Cole

William H. Hudnut III

W. Walter Menninger

Victor H. Palmieri

Henry Ruth

Stanley K. Sheinbaum

Alfred A. Slocum

Kathryn J. Whitmire



1201 Connecticut Avenue, NW, Suite 200, Washington, DC 20036 (202) 833-1460 ♦ Fax (202) 659-9149 ♦ e-mail: pfinfo@policefoundation.org www.policefoundation.org

This project was supported by cooperative agreement #97-CK-WX-K004 awarded by the Office of Community Oriented Policing Services, US Department of Justice. Points of view or opinions contained in this document are those of the authors and do not necessarily represent the official position or policies of the US Department of Justice.